

REMARKS/ARGUMENTS

The above listed claim amendments along with the following remarks are fully responsive to the outstanding Office Action.

Allowable Subject Matter

Claims 23-33 were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In particular, claims 23-33 were deemed to be allowable because they require method steps of predicting a number of scan lines necessary to compensate for [at least one of] pitch and roll errors from a response curve and from direct measurement of [at least one of] a pitch and roll error.

Independent claim 1 has been amended to include using an amount of scanning necessary to compensate for at least one of a pitch error and a roll error based on stored data from a prior measurement of at least one of the pitch and roll errors in a suspension of the type then being scanned.

Independent claim 20 has been amended to include the step of determining an amount of scanning necessary to compensate for at least a portion of one of a pitch and a roll error from a previously developed set of data for at least one of pitch and roll error.

Independent claim 34 has been amended to include predicting an amount of scanning necessary to compensate for at least one static attitude error from a set of stored data based on a prior measurement of at least one static attitude error.

Entry of this amendment is proper in that it places the application in condition for allowance because of the amendment of independent claims 1, 20 and 34 making these claims and all dependent claims allowable.

In addition to the amendments to the independent claims, certain amendments were made to the dependent claims to conform them to the claims from which they depend. In addition, new dependent claims 43-46 have been added to further clarify the presently claimed invention.

Claim Rejections – 35 USC § 103

Claims 1, 3-22, and 34-42 were rejected as unpatentable over Singh, (US patent 6,011,239) in view of Khlif (US patent 6,548,009).

Claims 1, 3-22 and 34-42 were rejected as unpatentable over Singh, (US patent 6,011,239) in view of Matsushita (Japanese 1-227279).

Applicants understand the characterization of Singh as having “scanning lines ...which are irradiation regions” as meaning that Singh has irradiation regions which include or are identified with or by lines 102, 106, 110. Applicants do not agree that Singh has “scanning lines” as that term is used in the instant application.

Applicants request the withdrawal of the rejection based on Khlif, since Khlif is not prior art to the instant application.

The second rejection is overcome by the amendment described above.

The Dependent Claims

Each of the dependent claims is allowable for the reasons stated with respect to the claim or claims from which it depends. Furthermore dependent claims through claim 42 are patentable for the respective reasons stated in the previous amendment.

New dependent claims 43 through 46 are patentable for the reasons stated with respect to the independent claims from which they depend.

In addition, claim 43 is patentable because none of the references, alone or in the hypothetical combinations of the rejections, teach or suggest a set of stored data experimentally determined and stored for later reference as the amount of scanning that needs to be performed to effect a desired deflection.

Claim 44 is also patentable because none of the references, alone or in the hypothetical combinations of the rejections, teach or suggest the claimed method when, processing a large number of head suspensions, a set of stored data is experimentally determined for a first few head suspensions, and stored for later reference as the amount of scanning that needs to be performed for at least one of the pitch error and roll error for the remaining head suspensions without requiring a measurement step on the remaining head suspensions.

FROM FAEGRE & BENSON

(MON) 9.22'03 14:38/ST. 14:34/NO. 4863101363 P 15

09/500,592
Page 14

Claim 45 is also patentable because none of the references, alone or in the hypothetical combinations of the rejections, teach or suggest the method wherein the set of stored data is experimentally determined and stored for later reference as the amount of scanning that needs to be performed to bend the metal region by an amount which causes the suspension to have the desired static attitude.

Claim 46 is also patentable because none of the references, alone or in the hypothetical combinations of the rejections, teach or suggest the method wherein, when processing a large number of head suspensions, the set of stored data is experimentally determined for a first few head suspensions, and stored for later reference as the amount of scanning that needs to be performed to bend the metal region by an amount which causes the suspension to have the desired static attitude for the remaining head suspensions without requiring a measurement step on the remaining head suspensions.

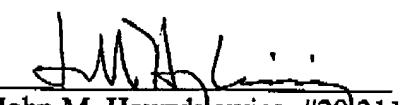
Conclusion

All pending claims are now in condition for allowance. A notice to that effect is respectfully requested.

Respectfully Submitted,

TIMOTHY RAYMOND UBL et al.

By:


John M. Hauryklewicz, #29,311
FAEGRE & BENSON LLP
2200 Wells Fargo Center
90 South Seventh Street
Minneapolis, MN 55402-3901
612/766-8216

Dated: September 22, 2003

M2:20567501.02

OFFICIAL